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S.T.

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/808, 017 03/03/97 HASHIMOTO

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EXAMINER

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THAI, X

ART UNIT

PAPER NUMBER

2781

DATE MAILED:

04/29/99

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks**

<b>Office Action Summary</b>	Application No. <b>08/808,017</b>	Applicant(s) <b>Hashimoto et al.</b>
	Examiner <b>Xuan Thai</b>	Group Art Unit <b>2781</b>

Responsive to communication(s) filed on Mar 8, 1999

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-10 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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### **RESPONSE TO AMENDMENT**

1. This is in response to amendment filed on March 17, 1999. Claims 1, 6 and 9 were amended. Claims 1-10 remain pending in the instant application.
2. Figures 5A to 5D should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

### ***Claim Rejections - 35 USC § 112***

3. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the recitation “during which” on line 5 is unclear because without specifying the “which” multiple interpretations are likely to occur. E.g. “which” can be referred to “a predetermined period of time” or a transferring of the first predetermined number of data items. As a result, the scope of the claim is indefinite.

Claims 4-5 are also indefinite because they depend from a rejected base claim.

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***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimatani (USPN 5,517,325).

As per claim 6, Shimatani discloses the claimed invention including a bus master control device for controlling an operation of a bus master for transferring data through a bus, the device comprising:

- bus occupation request means ... is taught as bus control signal generating unit 24 (e.g. column 4, lines 13-15);

- data transfer means ... is taught as memory 2, the a bus judging circuit 26, the bus control signal generating unit 24 and the cycle control unit 23 (col. 4, lines 31-36) working together to transfer a predetermined number of data (col. 3, lines 65 bridging col. 4, line 1) to a reduction processing unit 25. Furthermore, the predetermined number of data (taught as the number of data to be continuously transferred) is transferred without interruption based on a predetermined period of time ... is taught as the transferring of the data is continuously transferred

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until "the number of image data actually continuously transferred reaches the number of data to be continuously transferred which is set in the register unit 22..." (Column 4, lines 60-63. See also column 2, lines 8-14, 31-42, and 49-56);

- first determining means (cycle control unit 23) for determining (comparing the count value of the continuous transfer data number in the counter with the number stores in register unit 22) if the first predetermined number of data items (a number of data to be continuously transferred) have been transferred (reached) (Column 4, lines 51-59); and
- the bus release instruction means is taught as the cycle control unit 23 for releasing the CPU bus (column 2, lines 55-67).

**As per claim 7;** Shimatani discloses the claimed invention as applied to claim 6 supra.

Shimatani further teaches ...

- the bus occupation request means (bus control signal generating unit 24) outputs again the signal (BR) requesting to occupy the bus after the bus release instruction means (cycle control unit 23) outputs the signal (DMAEN) instructing to release the bus (e.g. see column 4, lines 63-67; col. 5, lines 10-14);
- the data transfer means (memory 2, the a bus judging circuit 26, the bus control signal generating unit 24 and the cycle control unit 23) transfers a second predetermined number of data items subsequent ... is taught as the series of operations of the data transfer is again repeated for transferring image data from memory 2 to the reduction processing unit 24. The process is

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repeated until the total number of data to be transferred is completed (column 5, lines 10-20; col. 2, lines 8-14).

**As per claim 8;** Shimatani discloses the claimed invention as applied to claim 6 supra. The further limitation of wherein the bus release instruction means outputs the signal instructing to release the bus after all the data items to be transferred have been transferred is taught by Shimatani as the cycle control unit 23, after detecting a value indicating the total number of data to be transferred the bus is released by negating the BGACK and bus request signal BR is prevented from being asserted. Thereby ending the cycle of DMA transfer having the total predetermined data to be transferred. (Column 5, lines 55-65).

**As per claim 9;** Shimatani discloses the claimed invention as applied to claim 6 supra. Shimatani further teaches the data transfer means comprises a first counter (a continuous transfer data number counter - col. 4, lines 47-48) for counting a number of data items which have been transferred out of the first predetermined number of data items (col. 4, lines 51-59); and

- the first determination means (cycle control unit 23) determines (comparing the count value of the continuous transfer data number in the counter with the number stores in register unit 22) if the first predetermined number of data items (a number of data to be continuously transferred) have been transferred (reached) based on an output from the first counter (a continuous transfer data number counter) (column 4, lines 47-63).

**As per claim 10;** Shimatani discloses the claimed invention as applied to claims 6 and 9 supra. Shimatani further teaches

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- a second counter (a total transfer data number counter - columns 3, lines 58-64, column 4, lines 46-47) for counting a number of data items which have been transferred out of all the data items to be transferred (col. 4, lines 46-52); and

- second determination means (cycle control unit 23) for determining if all the data items to be transferred have been transferred based on an output from the second counter (col. 5, lines 55-65).

***Allowable Subject Matter***

6. Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action.
7. Claims 2-5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter: After a full consideration of the claims and the prior art, claim 1 is found allowable because the prior art do not teach the combination of the method steps comprising of transferring a first predetermined number of data items of all data items to be transferred while the first device is occupying the bus, wherein the transferring the first predetermined number of data items is

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allowed to be continuously transferred without subject to interruption based on a set predetermined period of time *and* determining if the first device should release the bus based on whether or not there is a request from a second device after determining that the first predetermined number of data items have been transferred; and releasing the bus when determining that the first device should release the bus, accordingly.

#### *Response to Arguments*

9. Applicant's arguments with respect to claims 1-5 have been considered and they are deemed persuasive. However, the amended claim 1 is indefinite for reasons detailed supra and therefore is not allowable as currently recited. Claims 2-5 are not allowable because they depend from a rejected base claim.

10. Applicant's arguments with respect to claims 6-9 have been considered but are moot in view of the new ground(s) of rejection.

#### *Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**13. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-9051 (for formal communications intended for entry)

**Or:**

(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

**14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xuan M. Thai whose telephone number is (703) 308-2064.**

The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM.

The examiner can also be reached on alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Ayaz Sheikh can be reached on (703) 305-9648.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



XUAN M. THAI  
PATENT EXAMINER  
TECHNOLOGY CENTER 2700

XMT  
April 22, 1999